

Decorative Lamp Cover

This application is a continuation-in-part of U.S. Patent Applications Serial Nos. 10/274,592 filed, October 21, 2002 and 10/418,331 filed April 18, 2003 and

5 **copending herewith.**

Field of the Invention

01) **The present invention relates to lamp shades or covers and more particularly**

10 **to such devices for primarily exterior lighting applications that are durable, readily**

interchangeable and fashionably decorative.

Background of the Invention

15 **02) Decorative exterior lighting, for example along walkways, driveways and in**

garden areas, has become very popular. Such lighting can be low voltage, i.e. 12/24

volts driven by a transformer or solar powered, or 110 volts (in the U.S.). Low

voltage lighting produces relatively small amounts of heat and thus is low

temperature, while the more conventional incandescent lighting produces significant

20 **heat and higher temperatures, on the order of several hundred degrees Fahrenheit.**

The latter situation is particularly prevalent in the case of pole lighting fixtures and

sconces such as are used on either side of doors.

03) Similarly, the use of "theme" decorations around homes during the different festive seasons of the year, e.g. Halloween, Thanksgiving, Christmas, etc. is also common. It has therefore been found desirable to use existing exterior lighting fixtures as the basis for the installation of such theme decorations at the appropriate 5 times of the year.

04) Until the present time, most such decorative devices associated with, for example, exterior lighting as described above, have comprised inexpensive lamp shades or covers fabricated from paper or inexpensive plastics that are designed to 10 surround the entire lighting fixture at a safe distance so as not to expose the shade or cover to heat from the lighting device. Such prior art devices are, largely because of their materials of fabrication, not sufficiently weather, UV, etc. resistant as to be satisfactorily used more than about one season before disposal. Additionally, because of their design to surround the entire fixture much like a sack or bag, (due 15 to the large number of differing shapes and designs of such lighting fixtures) their location upon the lighting fixture can be disturbed by, for example, wind thereby disrupting their decorative value.

05) It would therefore be desirable to have decorative covers or shades for, for 20 example, exterior lighting that provide easy interchangeability without the use of tools and secure attachment to such lighting fixtures while being fabricated from materials that exhibit superior UV, weather, etc. resistance thereby providing many years of useful service.

Objects of the Invention

5 06) It is therefore an object of the present invention to provide a durable and
highly decorative lamp cover for, for example, exterior lighting devices that is
readily interchangeable, heat, weather and UV resistant and that can be safely and
securely attached to both high and low voltage lighting systems.

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Summary of the Invention

07) According to the present invention, there is provided a lamp cover
comprising a hollow pliant shell having an exterior surface in the form of a
decorative shape and an interior surface having pliant ribs extending inwardly from
15 the interior surface, or an integral interior cylinder which ribs or cylinder are of a
size and shape as to frictionally or elastically engage the exterior of a light fixture
lens, bulb cover or bulb. According to a preferred embodiment, the lamp cover is
fabricated from a pliable and high temperature resistant polymeric material that
permits its close contact with a low voltage or conventional light bulbs.

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Description of the Drawings

08) The invention will be best understood when the following detailed description is read in light of the accompany drawings wherein like numerals refer to like features and wherein:

5 09) Figure 1 is a partially phantom front view of one embodiment of the lamp cover of the present invention.

10) Figure 1A is partially phantom front view of another embodiment of the lamp cover of the present invention.

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11) Figure 2 is a bottom view of the embodiment depicted in Figure 1.

12) Figure 3 is an elevational view of one type of lighting fixture to which the lamp cover of the present invention can be applied.

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13) Figure 4 is a partially phantom rear view of the embodiment of the lamp cover of the present invention depicted in Figure 1 applied to the lighting fixture depicted in Figure 3.

20 14) Figure 5 is a partially phantom rear view of the embodiment of the lamp cover of the present invention depicted in Figure 1 applied directly to a low voltage bulb inserted into a suitable lighting fixture.

15) **Figure 6 is a partially phantom rear view of the lamp cover of the present invention depicted in Figure 1 applied to a globe of the type used to surround a conventional incandescent lamp inserted into a suitable lighting fixture.**

5 16) **Figure 7 is a partially phantom rear view of the lamp cover of the present invention depicted in Figure 1 applied directly to an incandescent light bulb inserted into a suitable lighting fixture.**

10 17) **Figure 8 is a top plan view of one embodiment of the lamp cover of the present invention showing recesses for the addition of coloring or other agents.**

18) **Figure 9 is a cutaway side view of one embodiment of the lamp cover of the present invention.**

15 19) **Figure 10 is a bottom view of one embodiment of the lamp cover of the present invention.**

20) **Figure 11 is a cutaway side view of an alternative embodiment of the lamp cover of the present invention.**

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21) **Figure 12 is a cutaway side view of yet another alternative embodiment of the lamp cover of the present invention.**

22) **Figure 13 is a cutaway side view of a further alternative embodiment of the lamp cover of the present invention.**

23) **Figure 14 is a cutaway side view showing an additional alternative 5 embodiment of the lamp cover of the present invention.**

24) **Figure 15 is a cutaway side view showing an additional alternative embodiment of the lamp cover of the present invention.**

10 25) **Figure 16 is a cutaway side view showing a final alternative embodiment of the lamp cover of the present invention.**

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Detailed Description

20 26) **Referring now to Figures 1, 1A and 2, the lamp cover 10 of the present invention comprises a hollow pliant shell 12 having an exterior surface 14 the provide some type of decorative shape, in the case of Figure 1 a “pumpkin” or “jack-o-lantern” of the type used in Halloween decorations and in the case of Figure**

1A a snowman of the type that would be used for a Christmas or winter decoration.

As will be described in greater detail hereinafter, lamp cover 10 is preferably at

least partially translucent and partially opaque to permit proper display of the

exterior decorative shape and details thereof when applied to a lighting fixture as

5 described below. According to the embodiment depicted in Figures 1, 2 and 4-7

lamp cover 10 also has an interior surface 16 from which extend inwardly a

plurality of pliant ribs 18 whose purpose, as described below, is to engage a light

bulb, lens, globe or lighting fixture to which lamp cover 10 is applied through

insertion of the light bulb or lighting fixture through aperture 20 in the bottom of

10 lamp cover 10. The term "pliant" as used herein to describe the various elements of

lamp cover 10 is meant to mean that the elements are bendable or flexible while of

sufficient structural strength as to retain their shape unless pressure is applied

thereto to deform them. Additionally, while it is preferred that hollow pliant shell

12 and pliant ribs 18 be fabricated from the same material for ease of fabrication as

15 described below, it is contemplated that the hollow pliant shell and the pliant ribs

could be fabricated from dissimilar pliant materials.

27) As alluded to above, it is preferred in many applications that while the bulk

of lamp cover 10 be translucent, that certain portions thereof be opaque. This is

20 perhaps best exemplified in the case of the embodiment depicted in Figure 1

wherein the eyes 21, nose 23 and mouth 25 of the "jack-o-lantern" shape depicted in

Figure 1 be made opaque by the application of, for example, paint or some other

suitable opacifying agent in these areas so as to project the properly defined image

when lamp cover 10 is applied over a lighting fixture or bulb as described below. While it is not critical to the successful practice of the present invention, it is also preferred that areas such as 21, 23 and 25 be recessed into outside surface 12 of lamp cover 10 as perhaps best shown in the case of eyes 21, for example, in Figure 8.

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28) Shown in Figure 3 is a so-called "mushroom" lighting fixture 30 of a type commonly used for exterior lighting along the edges of walkways, driveways, etc.

The essential elements of lighting fixture 30 are a stake portion 32 for insertion into the ground, a socket 34 and a mushroom-shaped cap or lens 36 whose purpose is to diffuse light produced by the enclosed light bulb (not shown in Figure 3) and to give it a "mushroom" shape. As shown in Figure 4, according to one embodiment of

10 lamp cover 10 of the present invention is applied to lighting fixture 30 by application of lamp cover 10 over mushroom-shaped cap or lens 36 by insertion of mushroom-shaped cap or lens 36 into aperture 20 in the bottom of lamp cover 10

15 and engagement of custom fabricated ribs 18 with mushroom-shaped cap or lens 36.

When thus applied over mushroom-shaped cap or lens 36, light emanating from mushroom-shaped cap or lens 36 is transmitted through the translucent portions of lamp cover 10 while the opacified portions, for example areas 21, 23 and 25 of

Figure 1, do not transmit light. In this fashion, the image of a "jack-o-lantern" is

20 replicated at each lighting fixture 30 to which lamp covers 10 are applied. For clarity, features 21, 23 and 25 have not been shown in Figure 4 – 7, however, their location and purpose will be readily apparent to the skilled artisan reading this

description, and the location and topography of specific eye area 21 as it relates to surface 12, depicted clearly in Figure 8.

29) In the embodiment depicted in Figure 5, lamp cover 10 of Figure 1 is applied
5 directly to a low voltage light bulb 40 with inwardly extending ribs 18 engaging the outer surface of low voltage bulb 40, after, in certain instances, socket 34 and low voltage bulb 40 having been inserted through aperture 20. In most instances, it is not necessary that socket 34 be inserted through aperture 20, but it may be so
10 inserted depending upon circumstances or the design of the particular lighting fixture to which lamp cover 10 is applied.

30) Similarly, as shown in Figure 6 because of the character of the materials of fabrication of lamp cover 10 as described in detail below, lamp cover 10 can be applied to a globe 42 that surrounds a conventional incandescent bulb 44 contained
15 in a socket 43 through the engagement of ribs 18 with the exterior surface of globe 42.

31) In yet a further embodiment of the lamp cover of the present invention depicted in Figure 7, lamp cover 10 is placed over incandescent bulb 44 through the
20 insertion of bulb 44, mounting member 46 and socket 45 through aperture 20 in lamp cover 10. In this embodiment, ribs 18 engage directly incandescent lamp 44.

32) As will be apparent to the skilled artisan, pliant ribs 18 in each of the foregoing embodiments may have a different configuration depending upon the particular lighting fixture or bulb structure with which they will be required to engage. Since it is contemplated that in one of its claimed embodiments, lamp cover 10 will be packaged with a specific fixture such customization of the shape of pliant ribs 18 is relatively simple. In other embodiments, because of the relative uniformity of low voltage and conventional incandescent bulbs, the problem of rib customization is not particularly difficult. In many instances, because of the high degree of pliability of the preferred materials of fabrication described below, the 10 shape of pliant ribs 18 can vary widely but still be such as to engage a broad variety of lighting fixture structures without significant customization.

33) While in those instances, for example that depicted in Figure 5, where pliant ribs 18 engage a relatively low temperature low voltage bulb 40, lamp cover 10 can 15 be fabricated from a variety of pliant polymeric materials, in those instances, for example that depicted in Figures 6 and 7, where lamp cover 10 is exposed to the relatively high temperatures produced by conventional incandescent bulbs, lamp cover 10 is preferably fabricated from a pliable high temperature polymer as described below.

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34) Referring now to Figure 9 that depicts yet another embodiment of the lamp cover 10A of the present invention, lamp cover 10A is assembled upon a cylindrical lamp cover base assembly 50. In accordance with this embodiment, lamp cover 10A

comprises shell 12A that may and preferably does have an aperture 52 in the top 54 thereof through which can be inserted a tab 56 or the like that can serve as an attachment point for, for example, a pumpkin stem 58 or the like, depending upon the particular shape or configuration of shell 12. Such an arrangement allows for 5 the secure attachment of shell 12A to lamp cover base 50 through the mechanism of stem 58 or the like serving as a “snap” or other securing fitting.

35) As best seen in Figure 9, it is lamp cover base assembly 50 that provides a broad range of lamp cover attachment options and which forms an important aspect 10 of the lamp cover system of the present invention. Lamp cover base assembly 50, as previously described comprises a cylindrical core 60, open at one end 62 and closed at the other end 64. Internal to lamp cover base assembly 50 cylindrical core 60 proximate closed end 64 are preferably pliant orthogonal ribs 18 which like ribs 18 previously described in connection with Figures 1-3, etc. serve to engage a light bulb 15 40 over which shell 12A is installed by passage of aperture 20 over the base of a light fixture 34 as shown in Figure 5. In this instance, however, it is cylindrical core 60 that directly engages light fixture 34 with ribs 18 directly engaging light bulb 40. In the embodiment depicted in Figure 9 light bulb 40 is a low voltage bulb of perhaps between about 5 and 24 volts depending upon the particular lighting system utilized. 20 In this alternative configuration, cylindrical core 60 is firmly and securely attached to light fixture 34. Similarly, associated and attached shell 12 of lamp cover 10 is also firmly and securely attached to cylindrical core 60 and light fixture 34 through the mechanism of tab 56 previously described.

36) While as described hereinabove, lamp cover base assembly 50 is described as a separate and distinct element from shell 12A of lamp cover 10, it will be apparent to the skilled artisan that using the materials of construction described below, or similar readily molded or formed materials, that lamp cover base assembly 50 can be formed as an integral part of shell 12A and the entire assembly of elements 12A and lamp cover base assembly 50 formed as a single integral unit with, as in the case depicted in Figure 8, even stem 58 being an integral part of the entire assembly. The advantage of lamp cover base assembly 50 being a separate element from shell 12A, for example, is however, that a single lamp cover base assembly 50 can be attached to light fixture 34 and bulb 40 and a variety of shells 12 interchangeably attached thereto without the need to remove cylindrical core 60 from light fixture 34 through the use of tab 56 or a similar shell attachment mechanism. The advantages of such ready interchangeability will be readily apparent to those skilled in the arts to which this invention pertains.

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37) Similarly, while lamp cover base assembly 50 is described hereinabove as having an open end 62 and a closed end 64, it will be readily apparent to the skilled artisan that closed end 64 could incorporate one or more apertures that might serve as vents for the release of heat produced by an incorporated light bulb 40.

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38) According to a preferred embodiment of the present invention, lamp cover 10 is fabricated by molding, injection molding, blow molding, etc. a high temperature resistant silicone polymer or silicone rubber. Such materials are

commonly available as liquids or gums suitable for fabrication as just described and exhibit temperature capabilities upwards of 200°C, which is adequate for direct exposure to the temperatures produced by a conventional incandescent bulb.

Additionally, these materials are very pliant and very good electrical insulators,

5 thus protecting the user from the danger of electrical shock in the applications described herein. Furthermore, these materials are weather resistant, thus making the lamp covers of the present invention suitable for outdoor use and extremely durable providing that they can be used for many years.

10 39) Such silicone polymers and silicone rubbers are of the type commonly used in such applications as rubber stoppers, industrial packaging, diaphragms, rollers etc., and demonstrate percent elongations in the range of about 300 to about 400 percent. These materials are easily colored through the use of conventional pigments and coloring agents, and such coloring techniques are well known to those 15 skilled in the art of molding such materials. This ability to be colored is of particular value in the lamp covers of the present invention as, for example in the case of the "jack-o-lantern" depicted in Figure 1, where the hollow pliant shell can be colored orange to mimic the color of a pumpkin while in the case of the shape depicted in Figure 1A the hollow pliant shell can be colored principally white to 20 project the image of a snowman. In the embodiment depicted in Figure 1, eyes 21, nose 23 and mouth 25 could be rendered opaque using a black or other paint applied to the outer surface of hollow pliant shell 12 to properly project the image desired.

40) A particularly preferred class of silicone polymers are those supplied under

the trademark Winthane™Silicone elastomers that are available from Winfield

Industries, 852 Kensington Ave., Buffalo, New York 14215 as liquids and when

fabricated retain their physical properties over a very wide range of working

5 temperatures, minus 60°C - +230° C. Fabrication of lamp cover 10 from pliant

materials such as these further simplifies the insertion of the lighting fixture or

portions thereof through aperture 20 in the bottom of lamp cover 10.

41) While as described above, the use of pliant ribs at the interior of the lamp

10 shade constitutes a preferred embodiment of the present invention, similarly useful

results can be obtained using the structures shown in Figures 11-16 wherein rather

than pliant ribs engaging the light bulb inserted into a fixture, the lamp shade

structure is provided with an inherently elastic integral interior cylinder that can

engage either the light bulb or the top portion of the fixture into which the light

15 bulb is inserted as described hereinafter. The elasticity of the silicone material from

which the lamp shade is fabricated is adequate to permit “stretching” of the integral

interior cylinder over either the light bulb or the light fixture as depicted in the

attached Figures 11-16.

20 42) As used hereinafter, the term “cylinder” is meant to mean and define any

structure having a peripheral wall, an open bottom and an open or closed top. The

“cylinder” may be of any suitable shape, i. e. round, square, octogonal etc. so long as

it has an open bottom and elastic peripheral walls suitable for engagement with a bulb or fixture as described herein.

43) As shown in Figures 11 and 12, a lamp shade of this type 100 comprises an

5 outer shell 102 having an aperture 104 in the bottom 105 thereof, which aperture provides access to an integral cylinder 106 that engages through stretching of the peripheral wall of cylinder 106 either: a fixture 108 into which a light bulb 110 is inserted (see Figure 11); or light bulb 110 inserted into fixture 108 (see Figure 12).

As can be seen in Figures 11 and 12, cylinder 106 is integrally formed with bottom

10 105 and outer shell 102. In the embodiments depicted in these Figures, it is clear that cylinder 106 should be translucent in order to permit light emitted by light bulb 110 to be visible through outer shell 102. In the embodiment depicted in these Figures, cylinder 106 is closed at its top 112.

15 44) Referring now to Figures 13 and 14, lamp shade 100 in these embodiments is of a different shape but includes an outer shell 102, a bottom 105 having an aperture 104 therein and an elastic integral interior cylinder 106 and includes an open top

114. In the embodiments depicted in these two Figures, interior integral cylinder

106 engages: either fixture 108 (see Figure 13); or light bulb 110 through stretching

20 of the peripheral wall of cylinder 106.

45) According to the alternative embodiments depicted in Figures 15 and 16,

interior integral cylinder 106 is provided with a closed top 112 in much the same

fashion as the embodiment depicted in Figures 11 and 12, but in this case the top 116 of outer shell 102 is open to allow for the escape of additional light emitted by light bulb 110.

5 **46) As is apparent from a review of Figures 11-16, interior cylinder 106 may elastically engage either fixture 108 as in the cases depicted in Figure 11, 13, and 15 wherein a low voltage bulb is inserted into fixture 108, or bulb 110 as depicted in Figures 12, 14 and 16 where a high voltage or conventional light bulb 110 is used.**

10 **47) As will be apparent to the skilled artisan, interior cylinder 106 may include ribs of the type described in connection with the embodiments depicted in attached Figures 1-10, if desired without departing from the scope of the invention. Similarly, a lens or globe may be mounted over the light bulb in the embodiments of Figures 11-16 in the same fashion as represented in Figures 1-10.**

15 **48) As with the previously described embodiments of the present invention described in connection with Figures 1-10, the hollow pliant shell is preferably translucent while portions thereof may be rendered opaque so as to define elements such as eyes and the like as described in connection with the earlier embodiments.**

20 **49) While the invention has been described largely in the context of flexible unitized shells preferably have pliant interior ribs or an integral interior cylinder that elastically engages a bulb or fixture to which the shells are applied, it will be**

apparent to the skilled artisan that the basic concept can be expanded upon with

very little substantial modification. For example, the lamp cover of the present

invention as described in connection with Figures 1-10 could be fabricated from

metal, stone, etc. With translucency provided in cutouts in those areas described

5 hereinabove as preferably opaque and opacity provided in those areas previously described as translucent due to the inherent opacity of the material of fabrication.

Thus, a pumpkin shape as depicted in Figure 1 could be provided with eyes 21, nose

23 and mouth 25 all cut out of a metallic or stone shell. In such an instance, ribs 18

extending from the interior surface of shell 12 interior surface could be of the same

10 or different materials. If of the same material as that of shell 12 as just described,

ribs 18 might or might not be pliant or only limitedly pliant depending upon the

material of fabrication. For example, if shell 12 is fabricated from a metal such as

steel ribs 18 could be rigid instead of pliant and custom made to accommodate their

engagement with a specific bulb or globe configuration. Alternatively if shell 12

15 were made of steel, ribs 18 could still be pliant by fabrication thereof from a suitable rubber or polymeric material that was adhered or otherwise attached to the interior surface of shell 12. Thus, a wide variety of variations and modifications of the

invention described herein are possible and contemplated by the inventors hereof.

20 50) There has thus been described a variety of embodiments of a novel

decorative lamp cover suitable for the interchangeable (without the use of tools)

decoration of lighting fixtures with the change of festive seasons or holidays. The

lamp cover of the present invention provides a weather resistant, temperature

**resistant and durable decorative element that can be used for many years and in
differing locations.**

51) As the invention has been described, it will be apparent to those skilled in the

**5 art that the same may be varied in many ways without departing from the spirit and
scope thereof. Any and all such modifications are intended to be included within the
scope of the appended claims.**